

**DRAFT SCREENING SITE INVESTIGATION  
FOR THE  
METRO SMELTING COMPANY SITE  
ONTARIO AND BATH STREET  
PHILADELPHIA, PENNSYLVANIA  
ECKEL SITE NUMBER 62**

Prepared for

U.S. Environmental Protection Agency Region 3  
Hazardous Site Cleanup Division  
1650 Arch Street  
Philadelphia, PA 19103

Prepared by

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Work Assignment No. 048-PAPA-03ZZ  
Project No. I4185.47502.0903

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## **1.0 INTRODUCTION**

Under Remedial Action Contract (RAC) No. 68-S7-3002, Work Assignment No. 048-PAPA-03ZZ, U.S. Environmental Protection Agency (EPA) Region 3 tasked Tetra Tech, Inc. (Tt), to assist EPA Region 3 in the assessment of properties suspected to have been former lead smelter foundries. Tt subcontracted completion of this work assignment to Tetra Tech EM Inc. (Tetra Tech).

Former lead smelter sites nationwide were identified in an April 2001 article published in the American Journal of Public Health by Eckel, and others (Eckel study) (Reference [Ref.] 1). The majority of these lead smelters operated prior to 1964 and closed before the current environmental regulations were instituted. As part of the Eckel study, soil samples were collected from several of the identified former lead smelter properties. Results from the analysis of these soil samples indicated that concentrations of lead exceeded EPA's recommended screening level for lead in residential soils. The results of the Eckel study indicate that the air disposition of lead into soils from the former smelter operations may present an ongoing public health concern due to exposure of residential populations, especially children, located in the vicinity of these former lead smelters, to soils containing elevated concentrations of lead (Refs. 1, 2, and 3).

The Eckel study identified 77 properties that may have been formerly used as lead smelters within EPA Region 3 (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia). EPA Region 3 is currently investigating these 77 properties. The objective of EPA's investigation of these properties is to (1) determine the potential for lead-contaminated soil to be present at the former lead smelter site or nearby properties (2) identify any populations that may be at risk to exposure to this soil, and (3) determine if soil sampling is warranted at any of these sites or nearby properties.

The following activities were completed as part of the initial screening investigation of each of these former lead smelter sites: (1) verify the former lead smelter address listed in the Eckel

study through historical Sanborn fire insurance maps, tax parcel information, and/or contacting local agencies, (2) determine if the site is listed in EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, (3) determine through census information and existing maps the number of schools, daycare centers or recreational parks that exist near the former lead smelter site, (4) determine the population residing within a 4-mile radius of the site, (5) conduct a windshield reconnaissance of the site and surrounding area to document the current land use, identify any exposed soil and verify the existence of any schools, daycare centers or parks in the immediate area, and (6) review all information acquired to determine if the collection and analysis of soil samples is warranted at the site or at any nearby property.

This report summarizes the findings of the tasks outlined above for the former lead smelter known as the Metro Smelting Company site located at the intersection of Ontario and Bath Street, Philadelphia, Pennsylvania, 19134. Each former smelter property was given a number in Eckel's study. The Eckel study number for this site is 62 (Ref. 1).

## **2.0 SITE LOCATION**

The former Metro Smelting Company facility was located at the intersection of Ontario and Bath Street, Philadelphia, Pennsylvania, 19134. The geographic coordinates of the former Metro Smelting Company facility are 39.983748 north latitude and 75.095197 west longitude on the Philadelphia, Pennsylvania-New Jersey and Frankford, Pennsylvania-New Jersey Quadrangles, 7.5 minute series, United States Geological Survey topographic maps (see Appendix A, Figure 1). The site is not currently listed in EPA's CERCLIS database (Ref. 4). An aerial photograph of the vicinity of the former lead smelter site has been included in Appendix A, Figure 2. This aerial photograph reveals the exposed soils and any identified areas of potential concern such as schools, daycare centers, or parks located within a half-mile radius of the site.

### **3.0 SITE OBSERVATIONS**

On December 16, 2005, Tetra Tech completed a non-sampling windshield reconnaissance of the Metro Smelting Company site and surrounding area. A photographic record of the current site conditions is included in Appendix B. Figure 3, shows the current layout of the site and surrounding area as observed during Tetra Tech's site reconnaissance. The following observations were recorded:

- The site is located in an area of Philadelphia occupied by primarily industrial properties. The exact location of the former lead smelter could not be identified.
- Commercial/industrial properties, including the Neatsfoot Oil Refinery, the William Parker Associates Warehouse, and the Florens Trucking Company are located in the vicinity of the former lead smelter. There are several residential row homes north of the subject property across Interstate 95.
- Exposed soils were identified along Interstate 95 and residential properties opposite Interstate 95 to the north. The industrial properties located in the vicinity of the site are primarily covered in concrete or asphalt.
- The Delaware River, a tributary to the Delaware Bay, is located approximately one-quarter mile southeast of the site vicinity.
- No schools or daycare facilities were identified in the immediate vicinity of the site.

#### 4.0 POTENTIAL TARGETS

Potential targets identified that may be exposed to lead-contaminated soils remaining in the vicinity of the former Metro Smelting Company site include any workers that may be employed at or in the nearby vicinity, and residents living north of the site vicinity. The population within a 4-mile radius of the site is summarized in the table below (Ref. 5).

**Population within a Four-mile Radius of the Site**

<b>Distance Ring (miles)</b>	<b>Population (number of persons)</b>
0.0 to 0.25	753
0.25 to 0.5	5,052
0.5 to 1.0	14,704
1.0 to 2.0	87,336
2.0 to 3.0	151,398
3.0 to 4.0	241,661

Source: U.S. Department of Commerce. Landview V Environmental Mapping Software based on the Bureau of Census 2000 Population Data. December 7, 2005.

No schools or daycare facilities were identified in the immediate vicinity of the site. Three schools have been identified within one-half mile of the site, including Martin School, Saint Alberts School, and Nativity School. Martin School is located approximately 1,000 feet northwest of the site, Saint Alberts School is located approximately one-third mile west of the site, and Nativity School is located approximately one-half mile northwest of the site. Richmond Playground and baseball fields are located one-quarter mile west-southwest of the site. Allegany Square Park is located approximately one-half mile northwest of the site and Fox Square is locate one-half mile north.

## **5.0 FINDINGS AND RECOMMENDATIONS**

The property is located in a primarily industrial area of Philadelphia. Exposed soils were observed on industrial properties in the vicinity of the site. As part of the Eckel report, a soil sample was collected from the Metro Smelting property and analyzed for lead. The exact location where the soil sample was collected was not documented in the report. A lead concentration of 2,550 milligrams per kilogram (mg/kg) was reported in this sample. A concentration of 400 mg/kg is generally recommended by EPA to be protective of human health in residential settings. Residential properties are located north, but not in the direct vicinity of the former lead smelter. Potential targets identified in the area is limited to workers and users of the baseball fields located to the west of the former lead smelter. To determine if former smelter activities impacted the baseball field soils the collection and analysis of soil samples would be necessary.

## REFERENCES

1. Eckel, W.P., Rabinowitz, M.B., Foster, G.D. American Journal of Public Health. "Discovering Unrecognized Lead-Smelting Sites by Historical Methods". April 2001.
2. Pennsylvania Department of Health. Suspected Former Lead Smelter Sites: A Potential Risk Factor for Childhood Lead Poisoning. August 2004.
3. U.S. Environmental Protection Agency (EPA). Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12. July 14, 1994.
4. U.S. EPA. Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) database. On-Line Address: <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>
5. U.S. Census Bureau. State and County Quick Facts. Accessed On-Line on December 7, 2005. On-Line Address: [quickfacts.census.gov/qfd/states/42.html](http://quickfacts.census.gov/qfd/states/42.html).



## **Appendix A**

### **Figures**



Metro Smelting Co.  
Ontario and Bath Streets  
Philadelphia, Pennsylvania  
Eckel Site No. 62

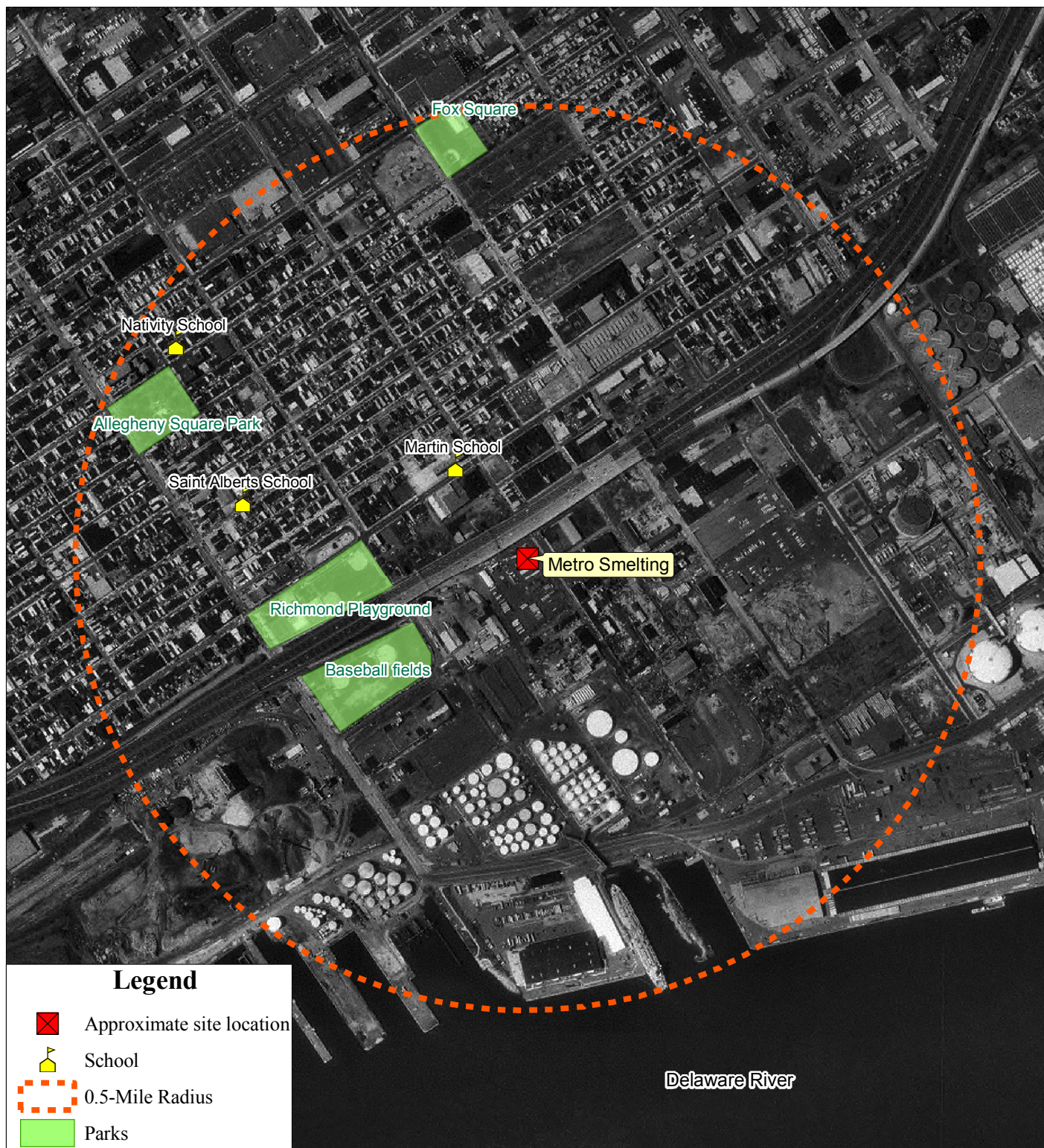


**Figure 1**  
Site Location Map



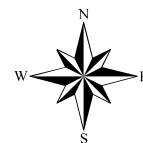
Source: Modified from USGS 7.5-Minute Series Topographic Quadrangles, Camden, New Jersey - Pennsylvania; Frankford, Pennsylvania-New Jersey





0 500 1,000  
  
 Scale in Feet

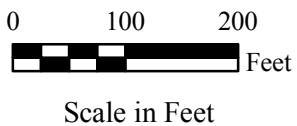
Metro Smelting Co.  
 Ontario and Bath Streets  
 Philadelphia, Pennsylvania  
 Eckel Site No. 62



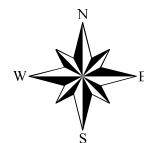
**Figure 2**  
 Aerial Photograph

Source: Modified from Digital Orthophoto (DOQQ) MrSID mosaic for Camden Quadrangle (NAPP III, 1997-2001)





Metro Smelting Co.  
Ontario and Bath Streets  
Philadelphia, Pennsylvania  
Eckel Site No. 62



### Legend

- Railroad tracks
- Buildings
- Pervious surface



**Figure 3**  
Site Layout Map

Source: Modified from Philadelphia City Planning Commission (PCPC) Department - GIS Division, 2006.



**Appendix B**  
**Photographic Documentation**





## *Photographic Documentation*

**Site Name:** Metro Smelting Company – Eckel Number 62

**Prepared by:** Tetra Tech EM Inc.

**Location:** Ontario and Bath Street, Philadelphia, Pennsylvania

**Photographer:** [REDACTED]

### **Photograph No. 1**

**Photograph Date:**

September 6, 2005

**Description:** View of the Florens Trucking Company.



### **Photograph No. 2**

**Photograph Date:**

September 6, 2005

**Description:** View of the Neatsfoot Oil Refinery.

